

Claims:

1 1. A system to control a communication rate between electrical components, comprising:
2 a first component including a first port to be coupled to a first number of communication
3 channels, said first port to control communication between the first port and the communication
4 channels at a first communication rate, such that said first port is to communicate with a second
5 number of communication channels in response to triggering event, said number being less than
6 said first number.

1 2. The system of claim 1, wherein a reconfiguration is performed by a power manager to
2 change from communication with the first number of channels to the second number of channels.

1 3. The system of claim 1, wherein a reconfiguration is performed by a thermal manager to
2 change from communication with the first number of channels to the second number of channels.

1 4. The system of claim 1, wherein a reconfiguration is performed by an operating system
2 under Operating System-based Power Management (OSPM) to change from communication
3 with the first number of channels to the second number of channels.

1 5. The system of claim 1, wherein said first number of channels includes said second
2 number of channels as a subset.

1 6. The system of claim 5, wherein an Interconnect bus includes said first number of
2 communication channels.

1 7. The system of claim 1, wherein a reconfiguration is performed to change from
2 communication with the first number of channels to the second number of channels in response
3 to said triggering event as a system management policy-based decision.

1 8. The system of claim 7, wherein said policy-based decision involves analysis of a number
2 of decision criteria.

1 9. The system of claim 8, wherein said number of decision parameters include: Power
2 Management; Thermal Management; Reliability, Availability, and Serviceability (RAS); and
3 System Performance.

1 10. The system of claim 8, wherein said analysis and said reconfiguration occur at a time
2 after system boot-up.

1 11. A method to control the communication rate of electrical components comprising:
2 utilizing, by a first component, a first number of communication channels to
3 communicate with a second component at a first communication rate;
4 utilizing, by said first component, a second number of communication channels to
5 communicate with said second component at a second communication rate; and
6 reconfiguring between the utilization of said first number of channels and said second
7 number of channels in response to a triggering event.

1 12. The method of claim 11, wherein said reconfiguration is performed by a power manager.

1 13. The method of claim 11, wherein said reconfiguration is performed by a thermal
2 manager.

1 14. The method of claim 11, wherein said reconfiguration is performed by an operating
2 system under Operating System based Power Management (OSPM).

1 15. The method of claim 11, wherein said first number of channels includes said second
2 number of channels as a subset.

1 16. The method of claim 15, wherein an Interconnect bus includes said first number of
2 communication channels.

1 17. The method of claim 11, wherein said reconfiguration is performed in response to said
2 triggering event as a system management policy-based decision.

1 18. The method of claim 17, wherein said policy-based decision involves analysis of a
2 number of decision criteria.

1 19. The method of claim 18, wherein said number of decision parameters include: Power
2 Management; Thermal Management; Reliability, Availability, and Serviceability (RAS); and
3 System Performance.

1 20. The method of claim 18, wherein said analysis and said reconfiguration occur at a time
2 after system boot-up.

1 21. A set of instructions residing in a storage medium, said set of instructions capable of
2 being executed by a processor to control the communication rate of electrical components
3 comprising:

4 utilizing, by a first component, a first number of communication channels to

5 communicate with a second component at a first communication rate;

6 utilizing, by said first component, a second number of communication channels to

7 communicate with said second component at a second communication rate; and

8 reconfiguring between the utilization of said first number of channels and said second

9 number of channels in response to a triggering event.

1 22. The set of instructions of claim 21, wherein said reconfiguration is performed by a power
2 manager.

1 23. The set of instructions of claim 21, wherein said reconfiguration is performed by a
2 thermal manager.

1 24. The set of instructions of claim 21, wherein said reconfiguration is performed by an
2 operating system under Operating System based Power Management (OSPM).

1 25. The set of instructions of claim 21, wherein said first number of channels includes said
2 second number of channels as a subset.

1 26. The set of instructions of claim 25, wherein an Interconnect bus includes said first
2 number of communication channels.

1 27. The set of instructions of claim 21, wherein said reconfiguration is performed in response
2 to said triggering event as a system management policy-based decision.

1 28. The set of instructions of claim 27, wherein said policy-based decision involves analysis
2 of a number of decision criteria.

1 29. The set of instructions of claim 28, wherein said number of decision parameters include:
2 Power Management; Thermal Management; Reliability, Availability, and Serviceability (RAS);
3 and System Performance.

1 30. The set of instructions of claim 28, wherein said analysis and said reconfiguration occur
2 at a time after system boot-up.